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Smith et al.

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(54) **IONIZATION SOURCE UTILIZING A JET
DISTURBER IN COMBINATION WITH AN
ION FUNNEL AND METHOD OF
OPERATION**

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(75) Inventors: **Richard D. Smith**, Richland, WA (US);
Taeman Kim, Richland, WA (US);
Keqi Tang, Richland, WA (US);
Harold R. Udseth, Richland, WA (US)

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(73) Assignee: **Battelle Memorial Institute**, Richland,
WA (US)

Primary Examiner—Jack Berman

(74) *Attorney, Agent, or Firm*—Stephen R. May; Douglas
E. McKinley, Jr.

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(57) **ABSTRACT**

A jet disturber used in combination with an ion funnel to focus ions and other charged particles generated at or near atmospheric pressure into a relatively low pressure region, which allows increased conductance of the ions and other charged particles. The jet disturber is positioned within an ion funnel and may be interfaced with a multi-capillary inlet juxtaposed between an ion source and the interior of an instrument maintained at near atmospheric pressure. The invention finds particular advantages when deployed to improve the ion transmission between an electrospray ionization source and the first vacuum stage of a mass spectrometer.

(21) Appl. No.: **09/860,721**

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(51) **Int. Cl.**⁷ **H01J 49/04**

(52) **U.S. Cl.** **250/288; 250/396 R; 250/292**

(58) **Field of Search** 250/288, 396 R,
250/292

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10 Claims, 7 Drawing Sheets

